

SPECIFICATION AMENDMENTS

Please amend paragraph 4 of the published application as follows:

-- -- [0004] One process of making the composite materials first begins with use of an elongate mold. The molds are slightly larger than the panels to be produced. The upper surfaces of the molds are finished to provide a substantially flat and smooth surface, since this surface forms the visible exterior surface of the panels. -- --

Please amend paragraph 6 of the published application as follows:

-- -- [0006] One method of applying the gel coating and laminates is to maintain the elongate mold in a stationary fashion, and move the gel-coating and laminate sprayers longitudinally and spray the entire length of the elongate mold. While this provides for an excellent layer of gel coating and laminate on the mold, capturing the fumes of the gel coating and laminate (resin) can be difficult, due to the movement of the sprayers and size of the mold. Alternatively, a mold may be moved under a gel_coat and resin applicator, such as described in commonly assigned copending application Ser. Nos. 09/998,731 and 09/997,893, filed Nov. 30, 2001, entitled "PROCESS FOR MANUFACTURING RESIN-BASED COMPOSITE MATERIAL" to Miller, now U.S. Patent Nos. 6,755,633 and 6,854,499, which are incorporated herein by reference in their entirety ("Miller"). -- --

Please amend paragraph 9 of the published application as follows:

-- -- [0009] In one method, called the hand-laid method, the cladding is formed by first introducing a layer of gel coat onto a mold surface. The gel coat is preferably sprayed on the mold surface, either using a hand sprayer or a reciprocator, then the ~~getl~~ gel coat is allowed to cure. Next, a layer of laminate (resin and chopped fiberglass fibers) material ~~isis~~ is applied sprayed on to the gel_coat, then a layer of core material (generally a mat) is de-reeled

on to the uncured laminate. Once the core material is in place, a second layer of laminate is applied onto the core material (again preferably using a reciprocator). Rollers are used at various stages to press out any air between the layers, especially after each resin/chop application and preferably after the core material is added. The rollers may include automated rollers attached to the reciprocator, and preferably include a number of operators using hand rollers as well. A light weight veil material is preferably laid onto the second layer of laminate and rolled in to create a smooth back side. The resin is then cured to form the cladding material. Additionally, it may be desirable to apply a veil on top of the gel coat layer for an improved exterior surface. -- --

Please amend paragraph 10 in the published application as follows:

-- -- [0010] In another method, the vacuum infusion method, a layer of gel coat is first cured onto a mold surface. A layer of dry fabric ply materials is de-reeled onto the gel coated mold. The ply material prefeably ~~consisting~~ consists of a number of layers to achieve desired ~~properties~~ properties. These layers preferably include ~~of chopped~~ one or more chopped fibrous mats (such as glass mattings), one or more layers of core matting material, one or more layers of flow medium (optional), and one of more layers of veil material (optional), all of which can optionally be stitched together, are de-reeled onto the gel coated mold. Alternatively, such layers can be needled or adhesively or otherwise bonded. Less preferably, the layers may be merely placed on top of each other. In any event, such bonding should not be visible on the surface ~~[[fo]]~~ of the molded part. Preferably the ply materials are generally dry plies. -

Please amend paragraph 11 of the published application as follows:

-- -- [0011] After the ply materials are positioned on the mold, the mold is closed by placing a silicone vacuum bag over the mold encompassing the gel coated surface and dry plies. The vacuum bag is sealed along the perimeter of the mold and vacuum is applied. Once substantially all of the air is thus removed from beneath the bag, ~~back~~ the resin delivery system is attached and resin is introduced in to the dry ply layers by siphoning the resin into the vacuum bag due to the difference in atmospheric pressure. The vacuum bag is removed when the dry laminate material is substantially entirely infused with the resin component and preferably after the resin has cured to at least the "gelled" point. The complete structure is then preferably left on the mold until the resin is then fully cured, therein by forming the cladding panel. -- --

Please amend paragraph 12 of the published application as follows:

-- -- [0012] The present invention offers many advantages over prior ~~and~~ art cladding manufacturing processes. First, the cladding panels may be produced without the seams commonly found in the prior art, while having a good exterior surface, preferably without fiber prominence and preferably forming a nearly perfect flat surface without visible imperfections, such as waviness, seams, or visible surface markings from manufacturing equipment. Also, the amount of waste associated with post-production trimming processes is greatly reduced. Third, the vacuum infusion process produces cladding panels with more consistent resin content throughout the laminate. Fourth, the vacuum infusion process can be precisely controlled in terms of the amount of resin delivered to the laminate panel, thereby ensuring part-to-part consistency and decreasing resin waste. Fifth, the vacuum infusion process (close molding) prevents all volatile organic compounds from being emitted into the environment. Sixth, the water absorption and rotting

associated with wood backers is not applicable with an all-composite panel. -

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Please amend paragraph 23 of the published application as follows:

-- -- [0023] ~~A preferred~~ The chopped fiber material is preferably a chopped glass fiber material in roving, continuous filament or strand form, and is chopped to approximately 1 inch in length. Some preferred chopped fiber materials include chopped 207 Roving, chopped strand matting, and chopped continuous filaments, all available from Owens Corning in many forms. -- --

Please amend paragraph 27 of the published application as follows:

-- -- [0027] The core material 26 consists of core glass fiber bound together with a binder resin. ~~A preferred~~ The core glass fiber for use in the core material 26 preferably has a nominal length of about 15.875 mm (0.625 inches) and has a diameter of approximately 13 micrometers. The binder resin is preferably a modified polyvinylacrylate, acrylic, or equivalent binder resin. Two preferred core materials include C2050-KA15 and C2035-KA05, each commercially available from Owens Corning. In an alternative embodiment (not shown), the core material 26 includes a second layer to replace the glass in the laminate layer 20. -- --

Please amend paragraph 31 of the published application as follows:

-- -- [0031] The cladding panel 10 formed according to the process of FIG. 1 offers numerous advantages over the prior art. First, a cladding panel 10 may be produced without the seams commonly found in the prior art. Also, the amount of waste associated with post-production trimming processes is greatly reduced. Thirdly, the surface of the panel is improved. Fourth, the properties of the panel may be tailored to the application, such that the layers may impart strength or performance characteristics for particular customer applications. Additionally, although not shown, a customer may require

cutouts (e.g. for a window), and such a panel may include a provision in the mold or an insert on top of the mold ~~[[to]]~~ for the cutout, or to limit the amount of resin and/or reinforcement that is discarded when making such a cutout. --- -

Please amend the Abstract as follows:

-- -- A new cladding panel for use on recreational vehicles is produced by either a hand-laid or vacuum infusion process. In the hand-laid method, the cladding is formed by first introducing and curing a layer of gel coat onto a mold surface. Layers of fiber reinforced resin material are subsequently laid onto the gel coating and molded to form the cladding panel. In the vacuum infusion process, the gel coating is first laid onto a mold surface of a vacuum infusion mold, and then ~~[[a]]~~ dry ply materials are laid onto the gel coating. The mold is closed and a resin component is infused into the dry laminate material under vacuum pressure and cured. The cladding panels produced by these methods produced are seamless and have limited waste associated with post-production trimming processes. Cladding panels produced using the vacuum infusion process have a more consistent composition and achieve improved part-to-part consistency. -- --